

**REMARKS**

Claims 1, 2, 4, 5, 7, 8 and 43-46 are pending in the current application. The claims have been addressed as follows in the non-final Office Action: claims 1, 2, 4, 5, 8 and 43 are rejected under 35 USC 103(a) as being unpatentable over Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971); and claim 7 is similarly rejected over Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971) and further in view of Kubierschky; claims 44 and 45 are similarly rejected as being unpatentable over Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971) and further in view of Asano et al. (5,629,669); claim 46 is similarly rejected as being unpatentable over Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971) and further in view of Hoffman (4,173,010).

The undersigned requests reconsideration of the rejections from the non-final Office Action in view of the following remarks.

**Rejection of Claims 1, 2, 4, 5, 8 and 43 under 35 USC 103(a) in View of Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971)**

Claim 1 currently reads as follows:

1. (Previously Presented) A target object inspection system comprising:  
a first detector for detecting radiation from a radiation source;  
at least one helium neutron detector for detecting radiation from the target object;  
a mobile platform including the first detector, the helium neutron detector and the radiation source; and  
**a boom connected to the radiation source at a first end of the boom and the mobile platform at a second end of the boom, wherein the first end of the boom is deployed so as to effect passage of the target object between the radiation source and the first detector and helium neutron detector, and further wherein the mobile platform and the target object pass alongside one another during inspection;**  
**the mobile platform being capable of inspecting a target object either when the mobile platform is stationary or when the mobile platform is moving;**  
wherein the mobile platform is a truck which includes a truck bed and the first detector and the helium neutron detector are located on the truck bed;  
and further wherein the helium neutron detector is capable of operating in two modes:  
**integral mode, wherein the neutron detector is turned ON and OFF by an operator and detects neutrons only while ON; and**  
**differential mode, wherein the neutron detector is always ON and is set to detect neutrons above a pre-set threshold level.**

In order to support a *prima facie* case of unpatentability under 35 USC 103, all limitations must be shown in the combination of references. With regard to Swift, Figure 2 is set forth below. Swift does not teach or suggest the limitations highlighted above wherein a radiation source is connected to the deployable (or any) end of a boom. The radiation source in Swift remains on the truck at all times. The claim requires that the boom be connected at a first end to the radiation source and at a second end to the mobile platform. In Swift, the boom (32) is connected to the mobile platform (24) at a first end and includes a beam stop (34) at the opposite end. The radiation source (40) (see Figure 5A below) is located on the mobile platform and is opposite the beam stop (34) when the boom is deployed. The beam stop (34) is meant to “stop” radiation beam (28) from radiation source (4). This configuration actually teaches away from the claimed configuration since it would be nonsensical to have a beam stop on the same end of a boom as the radiation source. Additionally, the system set forth in Swift is operated in a single mode, i.e., where the mobile platform is moving, it does not operate in a stationary mode as claimed.

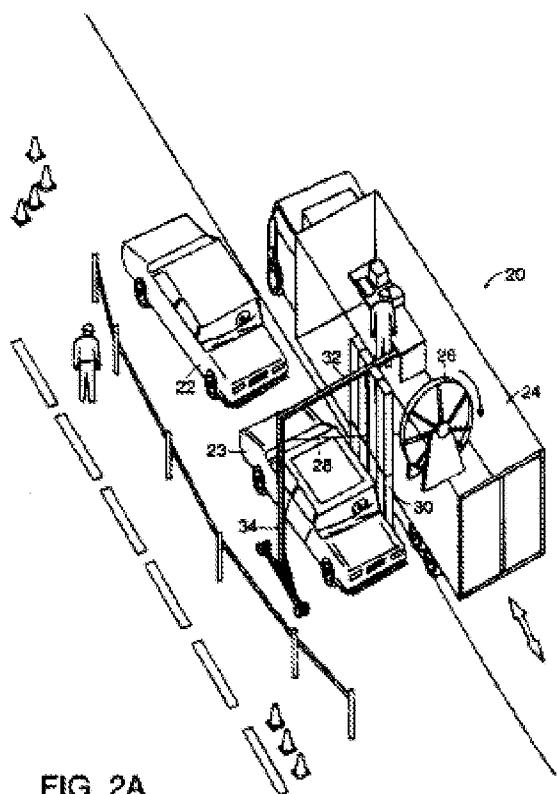
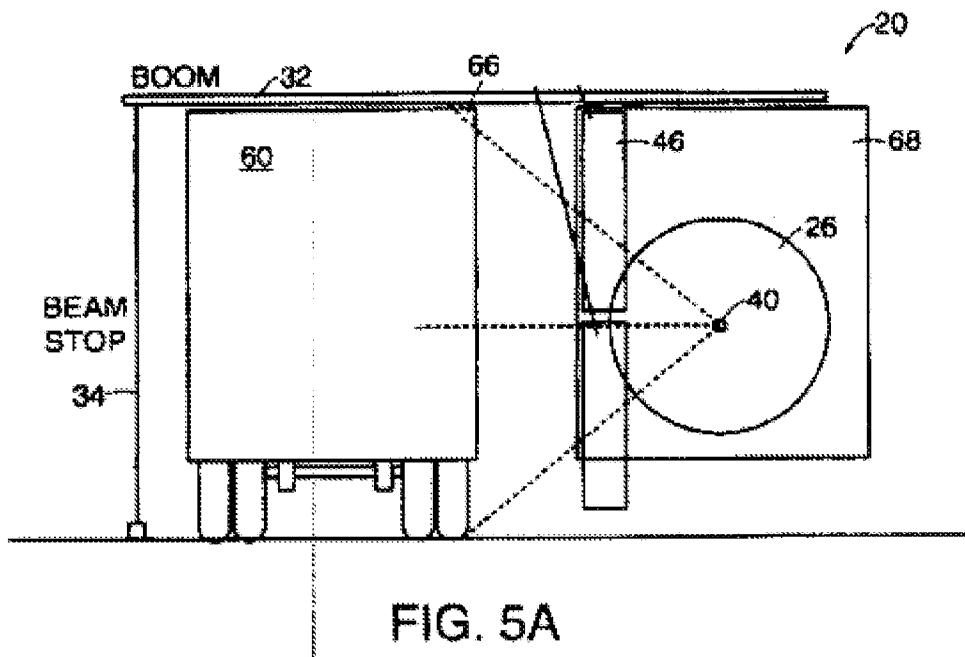


FIG. 2A



**FIG. 5A**

Similarly, Armistead does not cure the deficiencies of Swift as Armistead does not teach or suggest a boom. And, finally, Morgan is directed to a type of helium neutron detector and does not cure the deficiencies of Swift.

As admitted by the Office, Swift does not teach or suggest the use of at least one helium neutron detector. As highlighted above, claim 1 requires that the helium neutron detector be capable of operating in both integral and differential modes as claimed. The undersigned acknowledges that helium neutron detectors are known as taught by Armistead and Morgan. The invention, as claimed, is directed to a system which includes at least one neutron detector capable of operating in two different modes. There is no reference or combination of references that teaches or suggests a single helium neutron detector capable of operating in two different modes as claimed.

The undersigned submits that the invention as claimed in claims 1, 2, 4, 5, 8 and 43 is patentable over the combination of references as all limitations are not taught or suggested by the references cited, either alone or in combination.

**Rejection of Claim 7 under 35 USC 103(a) in View of Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971)and Kubierschky**

For the reasons stated above with respect to independent claim 1, the undersigned submits that dependent claim 7 is also allowable.

**Rejection of Claims 44-45 under 35 USC 103(a) in View of Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971) and Asano et al.**

For the reasons stated above with respect to independent claim 1, the undersigned submits that dependent claims 44-45 are also allowable.

**Rejection of Claim 46 under 35 USC 103(a) in View of Swift et al (5,764,683) in view of Armistead (5,838,759) and Morgan (3,240,971) and Hoffman et al.**

For the reasons stated above with respect to preceding claims, the undersigned submits that dependent claim 46 is also allowable.

**CONCLUSION**

The undersigned submits that claims 1, 2, 4, 5, 7, 8 and 43-46 are allowable over the cited art for the reasons set forth herein and awaits a notice of allowance to this effect. Should the Office have additional questions which would facilitate efficient prosecution of this application, please do not hesitate to contact undersigned at the number provided below.

Respectfully submitted,

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